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EXAMINER	
VAN DOREN, BETH	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	**Application No.** 10/004,725	**Applicant(s)** VENKATASUBRAMANYAN ET AL.	
	Examiner BETH VAN DOREN	**Art Unit** 3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 February 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4-8,11-15,18-23,25-29,31-35,37-41 and 43* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4-8,11-15,18-23,25-29,31-35,37-41 and 43* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/20/08 has been entered.

Claims 1, 4-8, 11-15, 18-23, 25-29, 31-35, 37-41, and 43 are pending.

Response to Arguments

2. Applicant's arguments with regards to Kennedy et al. (U.S. 6,047,290) in view of Weber et al. (U.S. 2002/0156663) have been fully considered, but they are not persuasive. In the remarks, Applicant argues that, (1) that Kennedy does not teach or suggest a buffer being operable to store a plurality of items and associated with a corresponding time variable, and the buffers of Kennedy are merely a software object that manages the flow of items in a supply chain, (2) that Weber does not teach or suggest generating a linear programming optimizer coupled to the database and operable to approximate the linear programming problem by discretizing the time variables of the buffers to yield a plurality of discretized time variables and by relaxing the constraint to yield a relaxed constraint; Applicant requests clarification on how Examiner arrives at her conclusion, and (3) the office action fails to establish a prima facie case of obviousness in light of KSR International Co. v. Teleflex, Inc. and has not shown the factual

findings necessary to establish obviousness or an explanation to support the proposed combination.

In response to argument (1), Examiner respectfully disagrees. Kennedy et al. discloses an inventory and material planning functionality and a planning system that creates plans using a supply chain model based on producers associated with buffers in the supply chain model. See figure 2, abstract, column 1, lines 39-55, column 2, lines 39-56, and column 3, lines 5-40. The optimized supply chain is produced by upstream and downstream planning, where producers are assigned to buffers, representing that the producers are able to supply the specified items to the buffers. A plan is generated by associating specific producers with specific buffers to satisfy demand and supply end items to consumers. Further, the buffers of Kennedy are used to store items (i.e. resources, etc.) and associated time values (i.e. delivery time, timing), wherein the supply chain network is restricted by the amount of supply of items available. See figure 1, column 1, lines 39-50, column 2, lines 24-35, 39-52, and 57-64, column 3, lines 20-45, column 6, lines 15-25, wherein data is accessed associated with a supply chain. Thus, when Kennedy et al. optimizes the supply chain model by associating specific producers with buffers to satisfy the required demand, the association creates a plan for the supply chain network. Examiner notes that the claim recites that a buffer is within a supply chain network and stores information. If something more specific is meant by the term buffer, it should be recited in the claim to receive appropriate patentable weight.

In response to argument (2), Examiner respectfully disagrees with Applicant's assertions. First, Examiner relied upon Kennedy et al. to disclose a database operable to store data describing a supply chain network and a planning system optimizer coupled to the database. See

at least figure 1, column 2, lines 20-37, where Kennedy et al. discloses the system using data stored in processor memory and a storage device to perform planning for a supply chain. See also figure 1 and column 3, wherein supply chain planning and optimization is performed, as further explained below. Weber et al. was solely relied on to teach using a linear programming program, approximating this problem using discretized variables to yield a plurality of discretized variables and by relaxing the constraint to yield a relaxed constraint and calculating an optimized solution supply plan for the approximated linear programming problem. Weber et al. teaches approximating this problem using discretized variables to yield a plurality of discretized variables and by relaxing the constraint to yield a relaxed constraint and calculating an optimized solution supply plan for the approximated linear programming problem. Weber et al. discloses using finite and discrete values in the linear programming problem. Weber et al. further disclose relaxing one of the constraints of this problem to be able to calculate an optimal solution, as well as both soft and hard constraints to the LP problem. Thus, the solution is approximated by the relaxation of constraints. See paragraphs 18, 27, 103, 120-1, and 170 and 106, 217.

Examiner notes that she did not only cite paragraph 18 to support relaxing constraints, but paragraphs 18, 27, 103, 106, 120-1, 170, 217. See specifically paragraphs 106 and 217, which talk about relaxing constraints.

In response to argument (3), Examiner points out that Applicant's comments do not reference any specific claims or point out any specific deficiency in Examiner's action. Rather, they a general allegation that Examiner has not has not shown the factual findings necessary to establish obviousness and has not provided an explanation to support the proposed combination.

In each instance below, examiner has set forth what the primary reference teaches and lacks, what the secondary reference teaches, and has further set forth the suggestion and motivation to combine the references. Without specific reference to specific claims and the deficiencies the Applicant believes are found therewith, Examiner is not sufficiently clear as to what the specific argument is with respect to the claims. Examiner maintains her rejections below.

Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 4-8, 11-15, 18-23, 25-29, 31-35, 37-41, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kennedy et al. (U.S. 6,047,290) in view of Weber et al. (U.S. 2002/0156663).

As per claim 1, Kennedy et al. discloses a computer-implemented method for generating a supply chain plan, comprising:

accessing data describing a supply chain network comprising a plurality of buffers, each buffer being operable to store a plurality of items and associated with a corresponding time variable, the supply chain network constrained by a constraint (See figure 1, column 1, lines 39-

50, column 2, lines 24-35, 39-52, and 57-64, column 3, lines 20-45, column 6, lines 15-25, wherein data is accessed associated with a supply chain. Buffers are used to store items (i.e. resources, etc.) and associated time values (i.e. delivery time, timing), wherein the supply chain network is restricted by the amount of supply of items available);

using an algorithm for the supply chain network (See column 1, lines 39-65, column 2, lines 25-32 and 55-65, and column 3, lines 25-40, wherein planning algorithms are used on the supply chain network);

calculating an optimized supply chain plan, the optimized supply chain plan describing a quantity of items at each buffer for at least one time value of the corresponding time variable and including a list of producers operable to supply the items to each buffer (See figure 2, column 2, lines 39-65, and column 3, lines 7-32 and 40-65, column 5, lines 40-60, column 6, lines 1-15, and column 7, lines 30-50, wherein an optimized supply chain is produced by the planning system, where a quantity of items is described for each buffer based on time values. See figure 2, column 2, lines 39-65, and column 3, lines 7-32 and 40-65, column 5, lines 40-60, column 6, lines 1-15, and column 7, lines 30-50, wherein an optimized supply chain is produced by upstream and downstream planning, where producers are assigned to buffers to supply the items to the buffers); and

adjusting the optimized supply chain plan to satisfy the constraint (See column 3, lines 15-45, column 5, lines 35-60, column 7, lines 30-50, and column 8, lines 5-20, wherein the supply chain is adjusted to satisfy the limited resources/production capabilities), wherein adjusting the optimized supply chain comprises:

repeating the following until a last upstream buffer is reached (See figure 2):

selecting a buffer (See figure 2, column 3, lines 55-67, column 6, lines 54-67, column 7, lines 15-35, wherein a buffer is analyzed);

adjusting at least one time value of the corresponding time variable of the selected buffer to satisfy the constraint (See figure 2, column 3, lines 1-24 and 35-45, column 5, lines 20-30 and 42-60, column 6, lines 1-10, wherein priority and due date associated with each buffer is adjusted); and

proceeding to a next upstream buffer (See figure 2, column 6, lines 54-67, column 7, lines 15-35, wherein the decisions propagate upstream); and

repeating the following until a last downstream buffer is reached (See figure 2):

selecting a buffer (See figure 2);

planning production to supply the items to the selected buffer at the adjusted time value (See figure 2, column 3, lines 35-45, column 4, lines 48-65, column 5, lines 35-50, column 7, lines 30-65, wherein a production plan is based on downstreaming and time values are adjusted based on this plan); and

proceeding to a next downstream buffer (See figure 2, column 8, line 55-column 9, line 6); and

generating an order plan by planning production to supply the quantity of items to each buffer according to the list of producers associated with the buffer (See figure 2, abstract, column 1, lines 39-55, column 2, lines 39-56, column 3, lines 15-40, wherein a production plan is generated where producers are associated with buffers).

However, Kennedy et al. does not expressly disclose that the algorithm used for the supply chain network is a generated linear programming problem, approximating this linear

programming problem by discretizing the corresponding time variables of the buffers to yield a plurality of discretized corresponding time variables and by relaxing the constraint to yield a relaxed constraint, or calculating an optimized supply chain plan for the approximated linear programming problem.

Weber et al. using a linear programming program, approximating this problem using discretized variables to yield a plurality of discretized variables and by relaxing the constraint to yield a relaxed constraint (See paragraphs 18, 27, 33, 103-6, 118, 120-1, and 170, which discloses setting up a supply chain model that represents the physical supply chain network and all the upstream and downstream parties involved, as well as establishing the objective function and the hard and soft constraints for the problem. Linear Programming is applied to the model to determine a solution. The problem is further discretized to improve the solution). Weber et al. further discloses calculating an optimized solution supply plan for the approximated linear programming problem (See paragraphs 15-6, 118, 120-1, wherein an optimal solution is determined using the goal and the hard and soft (relaxed) constraints).

Both Weber et al. and Kennedy et al. are concerned with optimally solving supply chain networks in the best possible way. Kennedy et al. discloses building a model of this supply problem, the model including items that flow through the supply chain and buffers that model the flow of these items, the input into buffers being referred to as producers and the output flows from buffers referred to as consumers. A planning system and algorithms are used to analyze this inflow and outflow of data to obtain an optimal supply chain plan. Weber et al. also discloses establishing a supply chain model that represents the physical supply chain network and all the upstream and downstream parties involved, as well as establishing the objective

function and the hard and soft constraints for the problem. An optimal solution is determined by applying OR techniques (such as LP) to this model, the optimal solution used for strategic and tactical planning. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the OR techniques, such as LP relaxation techniques, taught by Weber et al. in order to increase the efficiency of obtaining an optimal solution, yielding a solution that allows a user to make tactical and strategic decisions. See figure 2, column 3, lines 40-60, and column 7, lines 30-50, of Kennedy et al., which describes analyzing the model in pieces through upstreaming and downstreaming. See paragraphs 18, 27, 121, and 170, of Weber et al. that discusses finding an optimal solution for a supply chain model.

As per claim 4, Kennedy et al. teaches wherein adjusting the optimized supply chain plan comprises adjusting at least one time value of a corresponding time variable of at least one buffer to satisfy a constraint (See column 3, lines 15-45, column 5, lines 35-60, column 7, lines 30-50, and column 8, lines 5-20, wherein a time value associated with a group of consumers (i.e. delivery) is adjusted). However, Kennedy et al. does not expressly disclose satisfying a lead time constraint.

Weber et al. discloses inventory and lead time constraints (See paragraphs 39, 49, 81, 88, 101, 123, 217, which disclose inventory and lead time consideration, as well as lead time constraints).

Kennedy et al. discloses time constraints as well as using a model with buffers and a planning engine to manage safety stocks, safety times and timing of delivering items to consumers. These aspects (i.e. safety times and timing) are controlled by flow policies. Weber et al. also discloses time constraints in association with a supply chain model, the time

constraints including inventory considerations like lead-time. that represents the physical supply chain network and all the upstream and downstream parties involved, as well as establishing the objective function and the hard and soft constraints for the problem. The optimal solution determined by applying OR techniques (such as LP) to this model is used for strategic and tactical planning. It would have been obvious to one of ordinary skill in the art at the time of the invention to include lead time in a safety time aspect in order to increase the user's control over how the planning is performed by including aspects, such as safety time and lead time, to meet deadlines set by the user. See column 1, lines 30-32 and 50-65, of Kennedy et al.

As per claim 5, Kennedy et al. teaches wherein adjusting the optimized supply chain plan comprises adjusting at least one time value of a corresponding time variable of at least one buffer to satisfy a feasible time constraint (See column 3, lines 15-45, column 5, lines 35-60, column 7, lines 30-50, and column 8, lines 5-20, wherein a time value associated with a group of consumers (i.e. delivery) is adjusted to make supplying the demand feasible).

As per claim 6, Kennedy et al. discloses wherein adjusting the optimized supply chain plan comprises adjusting a quantity of items of at least one buffer to satisfy a lot constraint (See column 2, lines 55-65, column 3, lines 15-45, column 5, lines 35-60, column 7, lines 30-50, and column 8, lines 5-20, wherein the quantity supplied at a given time is adjusted (i.e. only supplying 9 instead of 10) in order to satisfy restrictions on supply and manage lot sizes. Flow policies dictate these restrictions).

As per claim 7, Kennedy et al. discloses adjusting the optimized supply chain plan comprises adjusting a quantity of items of at least one buffer to satisfy a capacity constraint (See

column 2, lines 55-65, and column 6, lines 30-50, wherein safety stock is discussed and managing flow rules to assure that a safety stock amount is able to be produced).

As per claim 8, Kennedy et al. teaches a system for generating a supply chain plan, comprising:

A database operable to store data describing a supply chain network comprising a plurality of buffers, each buffer being operable to store a plurality of items and associated with a corresponding time variable, the supply chain network constrained by a constraint (See figure 1, column 1, lines 39-50, column 2, lines 24-35, 39-52, and 57-64, column 3, lines 20-45, column 6, lines 15-25, wherein data is accessed associated with a supply chain. Buffers are used to store items (i.e. resources, etc.) and associated time values (i.e. delivery time, timing), wherein the supply chain network is restricted by the amount of supply of items available);

a planning system optimizer coupled to the database and operable to:

using an algorithm for the supply chain network (See figure 1, column 1, lines 39-65, column 2, lines 25-32 and 55-65, and column 3, lines 25-40, wherein planning algorithms are used on the supply chain network);

calculating an optimized supply chain plan, the optimized supply chain plan describing a quantity of items at each buffer for at least one time value of the corresponding time variable and including a list of producers operable to supply the items to each buffer (See figure 2, column 2, lines 39-65, and column 3, lines 7-32 and 40-65, column 5, lines 40-60, column 6, lines 1-15, and column 7, lines 30-50, wherein an optimized supply chain is produced by the planning system, where a quantity of items is described for each buffer based on time values. The

optimized supply chain is produced by upstream and downstream planning, where producers are assigned to buffers to supply the items to the buffers); and

a heuristic solver coupled to the database and operable to adjusting the optimized supply chain plan to satisfy the constraint (See column 3, lines 15-45, column 5, lines 35-60, column 7, lines 30-50, and column 8, lines 5-20, wherein the supply chain is adjusted to satisfy the limited resources/production capabilities through successive stages), wherein the solver is operable to adjust the optimized supply chain plan by:

repeating the following until a last upstream buffer is reached (See figure 2):

selecting a buffer (See figure 2, column 3, lines 55-67, column 6, lines 54-67, column 7, lines 15-35, wherein a buffer is analyzed);

adjusting at least one time value of the corresponding time variable of the selected buffer to satisfy the constraint (See figure 2, column 3, lines 1-24 and 35-45, column 5, lines 20-30 and 42-60, column 6, lines 1-10, wherein priority and due date associated with each buffer is adjusted); and

proceeding to a next upstream buffer (See figure 2, column 6, lines 54-67, column 7, lines 15-35, wherein the decisions propagate upstream); and

repeating the following until a last downstream buffer is reached (See figure 2):

selecting a buffer (See figure 2);

planning production to supply the items to the selected buffer at the adjusted time value (See figure 2, column 3, lines 35-45, column 4, lines 48-65, column 5, lines 35-50, column 7, lines 30-65, wherein a production plan is based on downstreaming and time values are adjusted based on this plan);

proceeding to a next downstream buffer (See figure 2, column 8, line 55-column 9, line 6); and

an order planner coupled to the database and operable to generate an order plan by planning production to supply the quantity of items to each buffer according to the list of producers associated with the buffer (See figure 2, abstract, column 1, lines 39-55, column 2, lines 39-56, column 3, lines 5-40, wherein a production plan is generated where producers are associated with buffers).

However, Kennedy et al. does not expressly disclose that the algorithm used for the supply chain network is a generated linear programming problem, approximating this linear programming problem by discretizing the corresponding time variables of the buffers to yield a plurality of discretized corresponding time variables and by relaxing the constraint to yield a relaxed constraint, or calculating an optimized supply chain plan for the approximated linear programming problem.

Weber et al. using a linear programming program, approximating this problem using discretized variables to yield a plurality of discretized variables and by relaxing the constraint to yield a relaxed constraint (See paragraphs 18, 27, 33, 103-6, 118, 120-1, and 170, which discloses setting up a supply chain model that represents the physical supply chain network and all the upstream and downstream parties involved, as well as establishing the objective function and the hard and soft constraints for the problem. Linear Programming is applied to the model to determine a solution. The problem is further discretized to improve the solution). Weber et al. further discloses calculating an optimized solution supply plan for the approximated linear

programming problem (See paragraphs 15-6, 118, 120-1, wherein an optimal solution is determined using the goal and the hard and soft (relaxed) constraints).

Both Weber et al. and Kennedy et al. are concerned with optimally solving supply chain networks in the best possible way. Kennedy et al. discloses building a model of this supply problem, the model including items that flow through the supply chain and buffers that model the flow of these items, the input into buffers being referred to as producers and the output flows from buffers referred to as consumers. A planning system and algorithms are used to analyze this inflow and outflow of data to obtain an optimal supply chain plan. Weber et al. also discloses establishing a supply chain model that represents the physical supply chain network and all the upstream and downstream parties involved, as well as establishing the objective function and the hard and soft constraints for the problem. An optimal solution is determined by applying OR techniques (such as LP) to this model, this solution being used for strategic and tactical planning. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the OR techniques, such as LP relaxation techniques, taught by Weber et al. in order to increase the efficiency of obtaining an optimal solution, yielding a solution that allows a user to make tactical and strategic decisions. See figure 2, column 3, lines 40-60, and column 7, lines 30-50, of Kennedy et al., which describes analyzing the model in pieces through upstreaming and downstreaming. See paragraphs 18, 27, 121, and 170, of Weber et al. that discusses finding an optimal solution for a supply chain model.

Claims 11-14 recite equivalent limitations to claims 4-7, respectively, and are therefore rejected using the same art and rationale as set forth above.

Claims 15 and 18-21 recite equivalent limitations to claims 1 and 4-8, respectively, and are therefore rejected using the same art and rationale as set forth above.

Claim 22 recites equivalent limitations to claim 1 and is therefore rejected using the same art and rationale as set forth above.

Claim 23 recites equivalent limitations to claim 1 and is therefore rejected using the same art and rationale as set forth above.

As per claim 25, Kennedy et al. teaches wherein generating the order plan comprises repeating the following until a last upstream buffer is reached:

selecting a buffer that requires a quantity of items (See figure 2, column 2, lines 38-65, column 3, lines 3-40, column 6, lines 22-29 and 40-53, wherein a buffer is selected);

planning production to supply the quantity of items to the selected buffer using at least some of the producers from the list of producers associated with the buffer (See figure 2, column 1, lines 40-65, column 2, lines 46-65, column 3, lines 8-30, column 6, lines 22-29 and 40-53, wherein a supply plan is produced); and

proceeding to a next upstream buffer (See figure 2, column 3, lines 35-55, column 6, lines 54-67, column 7, lines 15-35, wherein planning is propagated upstream).

As per claim 26, Kennedy et al. discloses wherein generating the order plan comprises repeating the following until production to supply a quantity of items to a buffer is planned:

selecting a producer from the list of producers associated with the buffer (See figure 2, column 2, lines 38-65, column 3, lines 3-40, column 6, lines 22-29 and 40-53, wherein a producer is selected from multiple producers based on ability to supply the buffer);

planning production to supply at least some of the items to the buffer using the

producer (See figure 2, column 1, lines 40-65, column 2, lines 46-65, column 3, lines 8-30, column 6, lines 22-29 and 40-53, wherein a supply plan is produced);

determining a remaining quantity of items required by the buffer (See column 2, line 65-column 3, line 15 and lines 25-40, column 4, lines 48-65, column 5, lines 55-67, column 7, lines 1-30, wherein quantity remaining is determined); and

proceeding to a next producer on the list (See column 1, lines 50-65, column 3, lines 25-40, column 6, lines 20-30 and 40-52, column 8, lines 30-41, wherein a next producer is used to supply the items).

As per claim 27, Kennedy et al. teaches wherein generating the order plan comprises repeating the following until production to supply a quantity of items to a buffer is planned:

selecting a producer from the list of producers associated with the buffer (See figure 2, column 2, lines 38-65, column 3, lines 3-40, column 6, lines 22-29 and 40-53, wherein a producer is selected from multiple producers based on ability to supply the buffer);

planning production to supply at least some of the quantity of items to the buffer using the producer (See figure 2, column 1, lines 40-65, column 2, lines 46-65, column 3, lines 8-30, column 6, lines 22-29 and 40-53, wherein a supply plan is produced);

proceeding to a next producer on the list if there is a next producer (See column 1, lines 50-65, column 3, lines 25-40, column 6, lines 20-30 and 40-52, column 8, lines 30-41, wherein a next producer is used to supply the items); and

planning production regardless of the list if there is no next producer (See column 3, lines 25-40, column 7, lines 30-50, column 8, lines 5-16 and 30-41, wherein production is planned to make consumer delivery late when there is no next producer).

As per claim 28, Kennedy et al. teaches wherein generating the order plan comprises repeating the following if a quantity of items cannot be supplied to a buffer by a deadline, until the quantity of items for the buffer is planned:

selecting a producer from the list of producers associated with the buffer, the producers operable to supply the items to the buffer after the deadline (See column 3, lines 25-40, column 7, lines 30-50, column 8, lines 5-16 and 30-52, wherein producers are selected to make delivery of the item after the due date);

planning production to supply at least some of the quantity of items to the buffer using the selected producer (See column 3, lines 25-40, column 7, lines 30-50, column 8, lines 5-16 and 30-52, wherein producers are selected to make delivery of the item after the due date); and

proceeding to a next producer on the list (See column 1, lines 50-65, column 3, lines 25-40, column 6, lines 20-30 and 40-52, column 8, lines 30-41, wherein a next producer is used to supply the items).

As per claim 29, Kennedy et al. discloses wherein generating the order plan comprises repeating the following if a quantity of items cannot be supplied to a buffer by a deadline, until the quantity of items for the buffer is planned:

selecting a supply time according to the list of producers associated with the buffer, the producers operable to supply the items to the buffer at one or more supply times after the deadline (See column 2, lines 55-65, column 3, lines 25-40, column 7, lines 30-50, column 8, lines 5-16 and 40-67, wherein timing associated with producers is selected, wherein times after due dates are utilized);

planning production to supply at least some of the quantity of items to the buffer using a producer operable to supply the items at the selected supply time (See column 1, lines 40-65, column 3, lines 25-40, column 7, lines 30-50, column 8, lines 5-16 and 30-52, wherein a supply plan is produced to supply items at the specified time); and

proceeding to a next supply time (See column 3, lines 25-40, column 7, lines 30-50, column 8, lines 5-16 and 40-67, wherein a next supply time (a late time) is selected).

Claims 31-35 recite equivalent limitations to claims 25-29, respectively, and are therefore rejected using the same art and rationale as set forth above.

Claims 37-41 recite equivalent limitations to claims 25-29, respectively, and are therefore rejected using the same art and rationale as set forth above.

Claim 43 recites equivalent limitations to the combination of claims 24 and 26, and is therefore rejected using the same art and rationale as set forth above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BETH VAN DOREN whose telephone number is (571)272-6737. The examiner can normally be reached on M-F, 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on 571-272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/B.V.D/
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/Beth Van Doren/
Primary Examiner, Art Unit 3623

Application Number	Application/Control No.	Applicant(s)/Patent under Reexamination	
	10/004,725	VENKATASUBRAMANYAN ET AL.	
	Examiner	**Art Unit**	
	BETH VAN DOREN	3623	